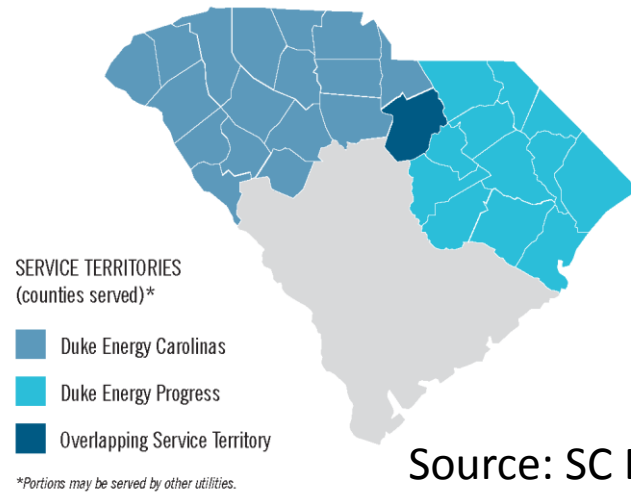


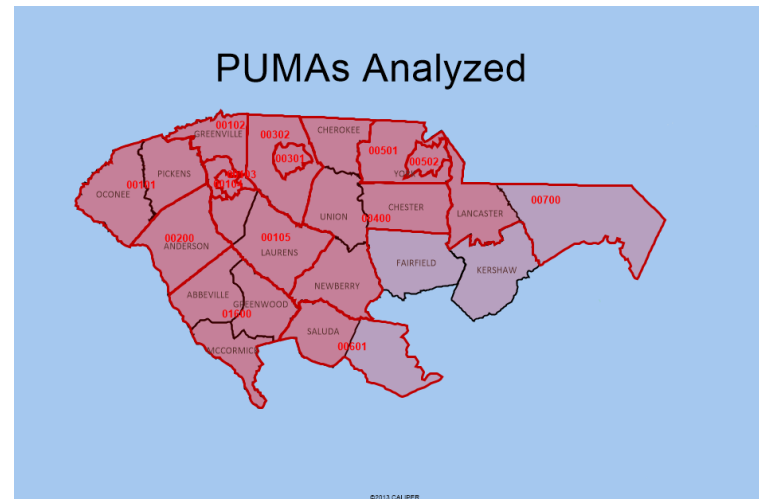
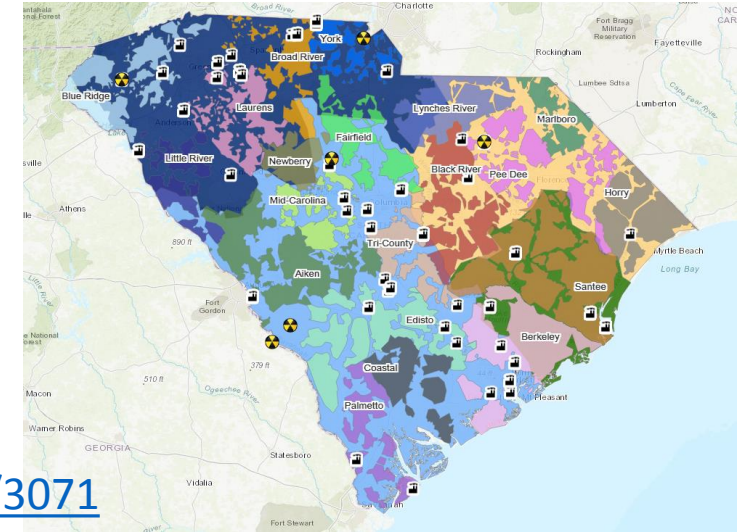
Allowable Ex Parte Briefing by AARP South Carolina to South Carolina  
Public Service Commission, Docket 2018-319-E, February 20, 2019

Presentation by John C. Ruoff, Ph.D.  
Regarding Effects of Proposed Rate Adjustment on Consumers

# Duke Energy Carolinas SC Service Territory

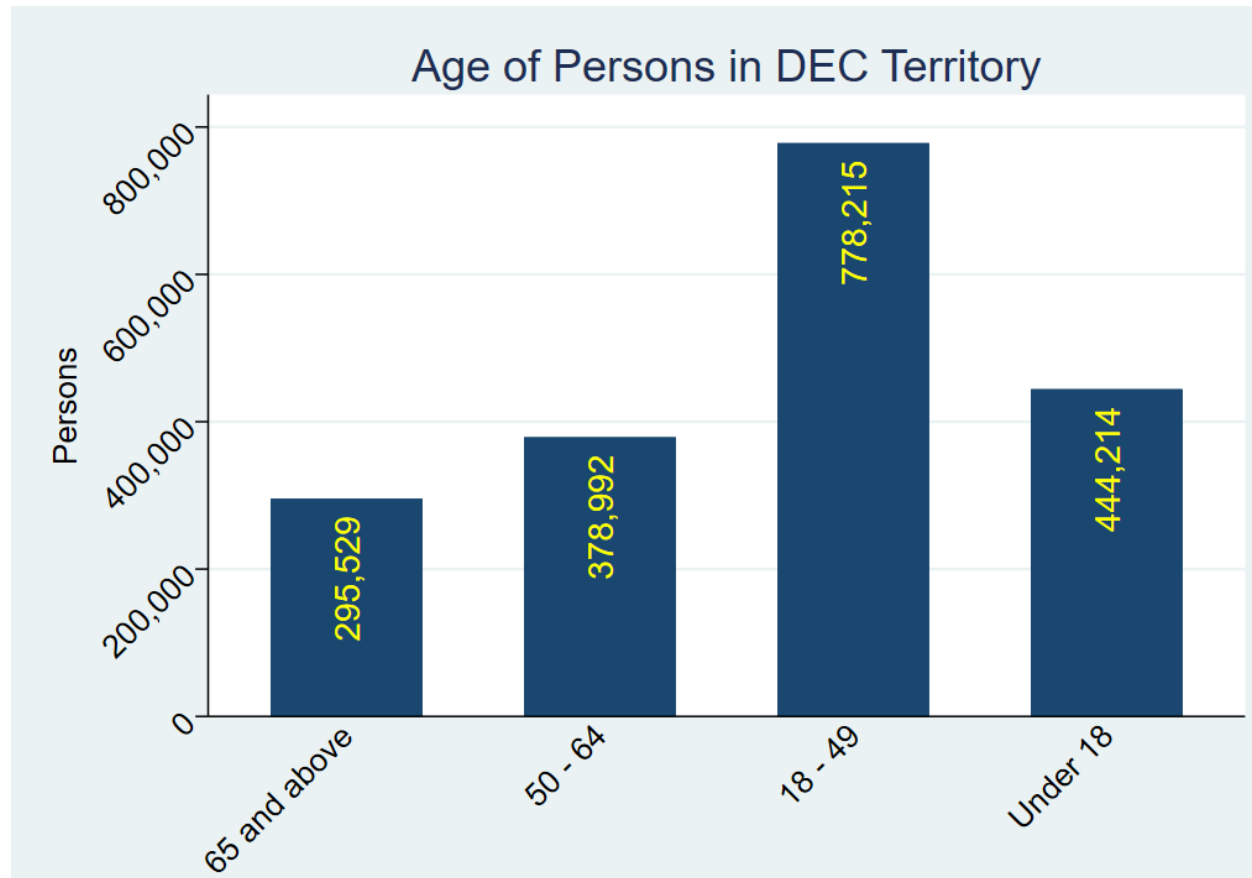


Source: SC Energy Office at <http://energy.sc.gov/node/3071>



# Demographics - Age

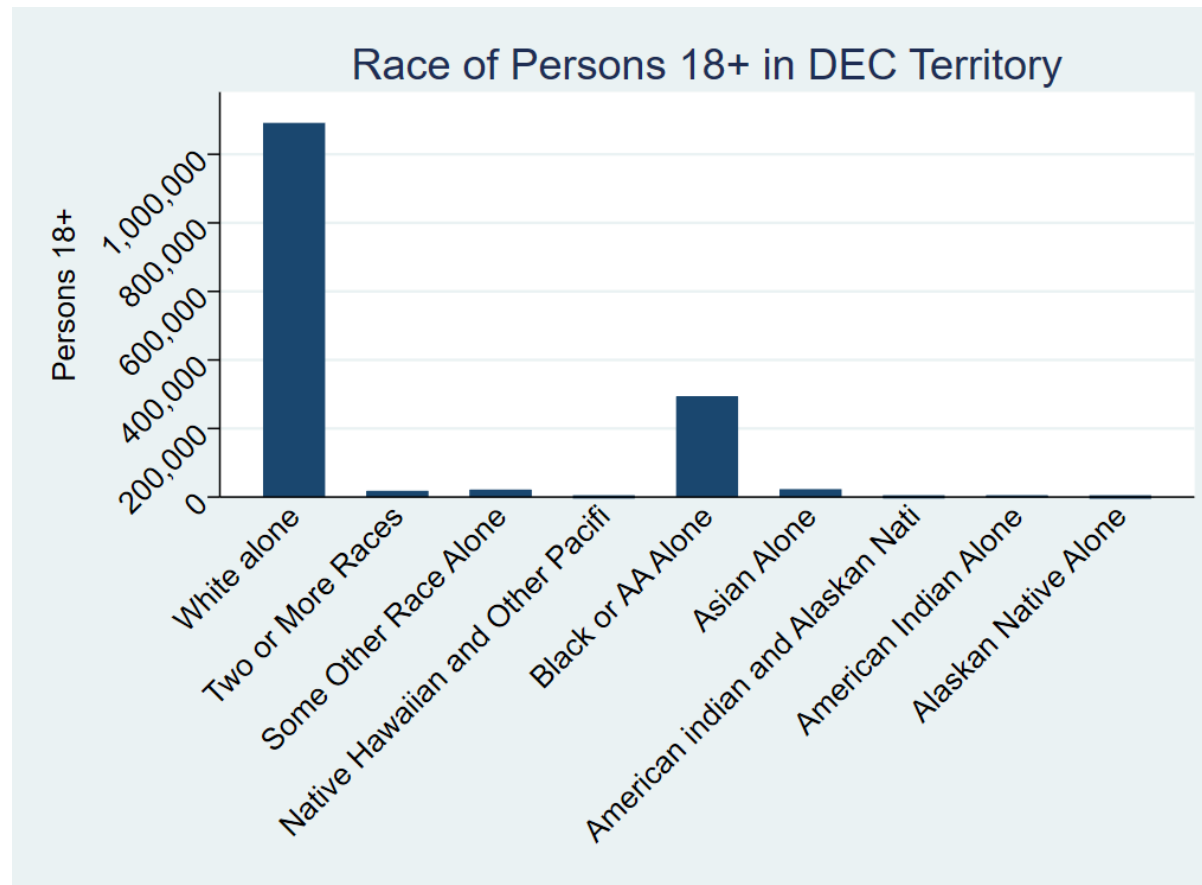
16 % of DEC area are aged 65 and above  
Another 20 % are 50 to 64



**Source:** U.S. Census Bureau, American Community Survey, Public Use Microdata Sample, 5 year 2013-2017 data set at [https://factfinder.census.gov/bkmk/navigation/1.0/en/d\\_dataset%3AACS\\_17\\_5YR/d\\_product\\_type%3APUMS?#](https://factfinder.census.gov/bkmk/navigation/1.0/en/d_dataset%3AACS_17_5YR/d_product_type%3APUMS?#)

# Demographics - Race

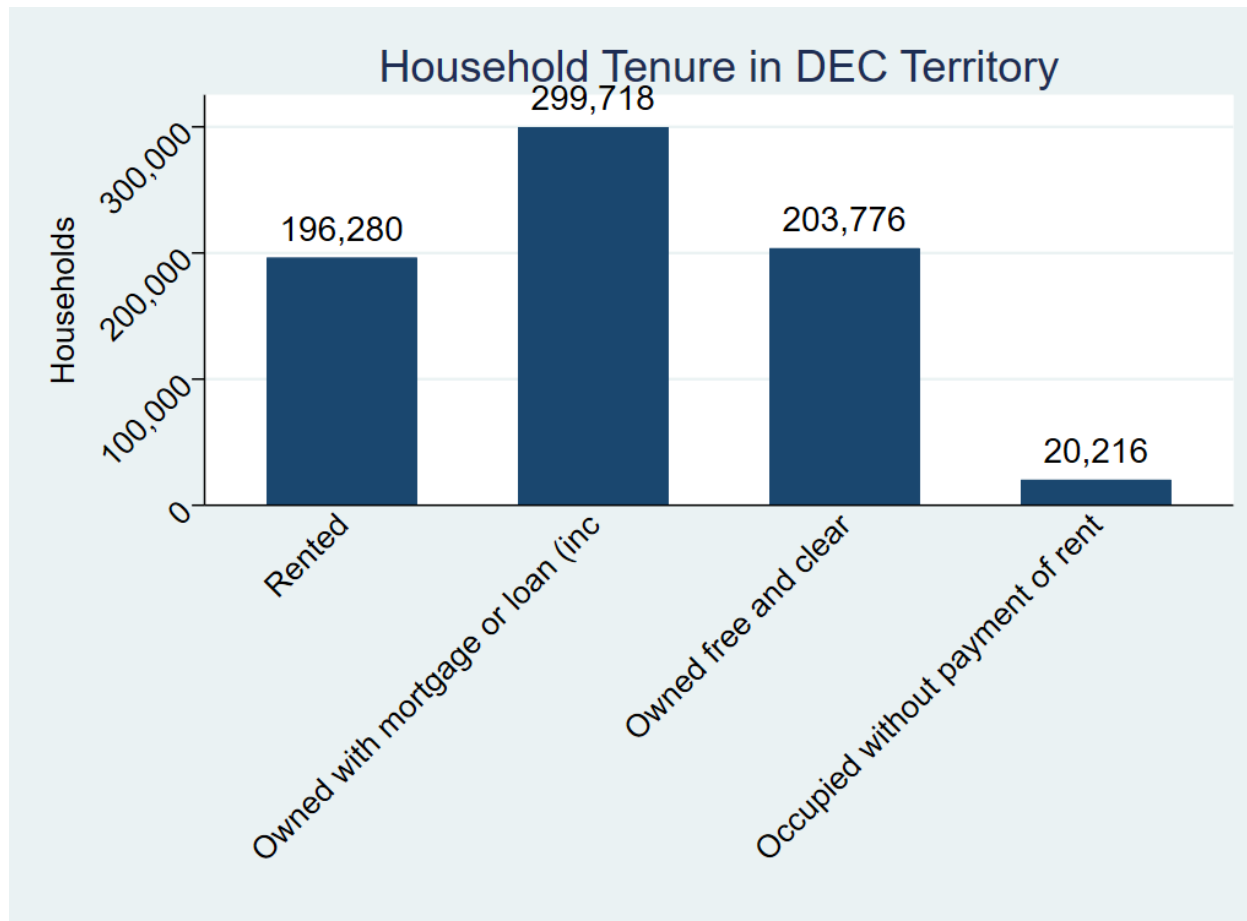
75 % of the 18+ population in DEC territory are White alone,  
20 % are Black or African-American  
5 % are Latino



**Source:** U.S. Census Bureau, American Community Survey, Public Use Microdata Sample, 5 year 2013-2017 data set at [https://factfinder.census.gov/bkmk/navigation/1.0/en/dataset%3AAACS\\_17\\_5YR/d\\_product\\_type%3APUMS?#](https://factfinder.census.gov/bkmk/navigation/1.0/en/dataset%3AAACS_17_5YR/d_product_type%3APUMS?#)

# Demographics - Tenure

27 % of households in DEC Territory are Renters and 3 % live without payment of rent

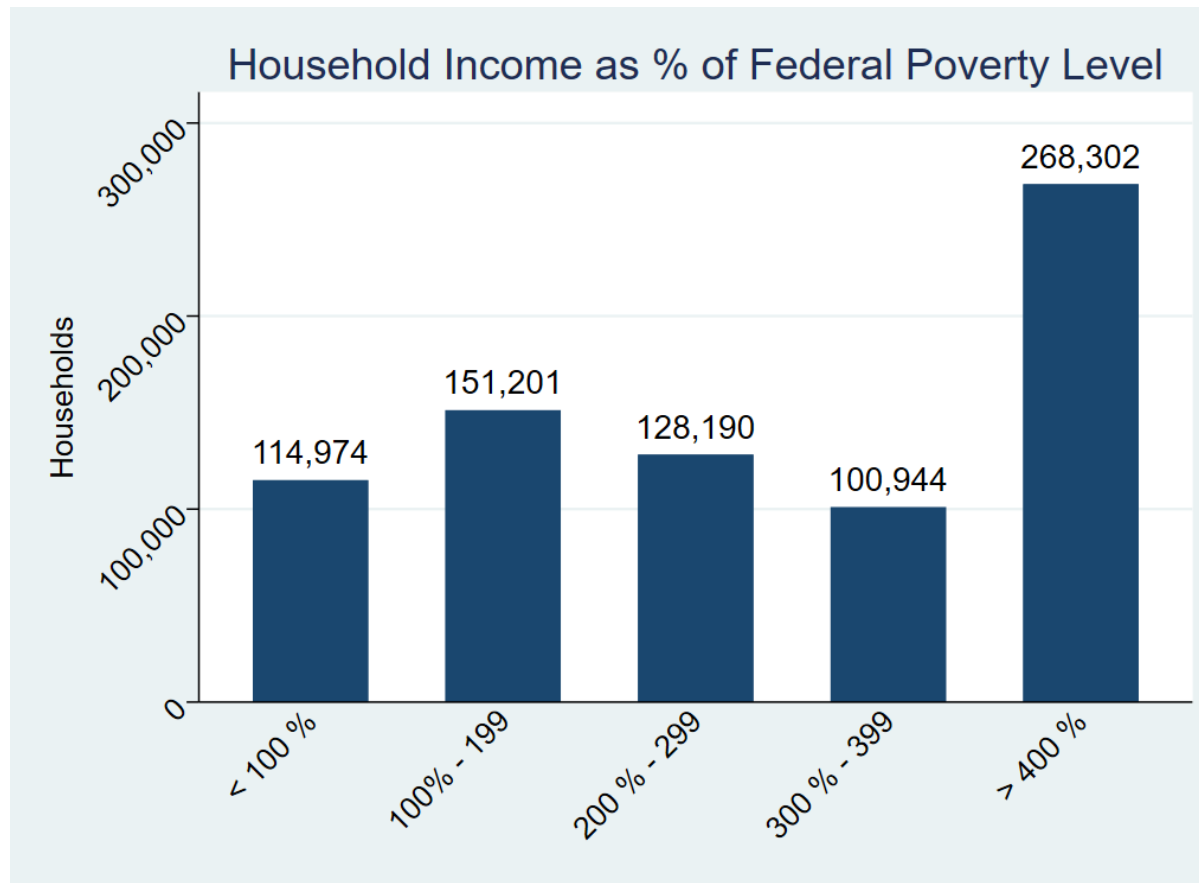


**Source:** U.S. Census Bureau, American Community Survey, Public Use Microdata Sample, 5 year 2013-2017 data set at [https://factfinder.census.gov/bkmk/navigation/1.0/en/d\\_dataset%3AACS\\_17\\_5YR/d\\_product\\_type%3APUMS?#](https://factfinder.census.gov/bkmk/navigation/1.0/en/d_dataset%3AACS_17_5YR/d_product_type%3APUMS?#)

# Economics – Federal Poverty Level

18 % of Households live below the federal poverty level

35 % of Households live below 200 % of the federal poverty level



**Source:** U.S. Census Bureau, American Community Survey, Public Use Microdata Sample, 5 year 2013-2017 data set at [https://factfinder.census.gov/bkmk/navigation/1.0/en/dataset%3AAACS\\_17\\_5YR/d\\_product\\_type%3APUMS?#](https://factfinder.census.gov/bkmk/navigation/1.0/en/dataset%3AAACS_17_5YR/d_product_type%3APUMS?#)

# Economics – Federal Poverty Guidelines 2019

<b>Persons in family/household</b>	<b>2019 Poverty Guideline</b>
1	12,490
2	16,910
3	21,330
4	25,750
5	30,170
6	34,590
7	39,010
8	43,430

For families/households with more than 8 persons, add \$4,420 for each additional person.

Source: US Dept. of Health & Human Svcs., Office of the Assistant Secretary for Planning & Evaluation, 2019 Poverty Guidelines at <https://aspe.hhs.gov/2019-poverty-guidelines>

# Economics – Households Receiving Supplemental Nutrition Assistance Program (formerly Food Stamps)

In the 18 counties served by DEC, on an average month from July 18 through January 2019, 120,205 households received SNAP benefits.

**Source:** SC Dept. of Social Services, SNAP Participation January 2019 at [https://dss.sc.gov/media/1916/fs\\_20101.pdf](https://dss.sc.gov/media/1916/fs_20101.pdf)

In October 2018, the average monthly Household benefit in South Carolina: \$268.40. For an individual, the average monthly benefit: \$124.95, or \$4.03 per day

**Source:** U.S. Dept. of Agriculture, Food and Nutrition Service, *Persons, Households, Benefits, and Average Monthly Benefit per Person & Household*, FY69 through FY19, FY19.xls at <https://www.fns.usda.gov/sites/default/files/pd/SNAPZip69throughCurrent.zip>



# Economics – Social Security

## Persons in DEC territory aged 62 and above:

- 268,000 receive Social Security Benefit:  
Average monthly benefit: \$1,204
- Percent of SS recipients for whom Social Security is their entire income: 38 %
  - Average monthly benefit for those who have no income other than their Social Security check: \$1,059.

Source: U.S. Census Bureau,  
American Community Survey,  
Public Use Microdata Sample, 5  
year 2013-2017 data set at  
[https://factfinder.census.gov/bkmk/navigation/1.0/en/d\\_dataset%3AACS\\_17\\_5YR/d\\_product\\_type%3APUMS?#](https://factfinder.census.gov/bkmk/navigation/1.0/en/d_dataset%3AACS_17_5YR/d_product_type%3APUMS?#)

# Economics - Rents

The average rent in the DEC area was \$829 per month.

**Source:** U.S. Census Bureau, American Community Survey, Public Use Microdata Sample, 5 year 2013-2017 data set at [https://factfinder.census.gov/bkmk/navigation/1.0/en/d\\_dataset%3AACS\\_17\\_5YR/d\\_product\\_type%3APUMS?#](https://factfinder.census.gov/bkmk/navigation/1.0/en/d_dataset%3AACS_17_5YR/d_product_type%3APUMS?#)

Rental housing costs (rent + utilities) as a percent of household income ranged from 28.1 % in McCormick County to 49.7 % in Greenwood County compared to the standard of 30 %.

**Source:** U.S. Census Bureau, American Factfinder, American Community Survey, 5 Year 2003-2017 sample, PERCENT OF RENTER-OCCUPIED UNITS SPENDING 30 PERCENT OR MORE OF HOUSEHOLD INCOME ON RENT AND UTILITIES - United States -- County by State; and for Puerto Rico, Table GCT215, at <https://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t>

# Economics - Evictions

Economic fragility is represented in the numbers of eviction filings and evictions in the covered counties. In 14 of the 18 relevant counties, the Eviction Lab at Princeton found 252,178 eviction filings and 69,637 evictions in 2016. In most covered counties, eviction rates have substantially increased over the past several years.

This presentation uses data from The Eviction Lab at Princeton University, a project directed by Matthew Desmond and designed by Ashley Gromis, Lavar Edmonds, James Hendrickson, Katie Krywokulski, Lillian Leung, and Adam Porton. The Eviction Lab is funded by the JPB, Gates, and Ford Foundations as well as the Chan Zuckerberg Initiative. More information is found at [evictionlab.org](https://eviction-lab-data-downloads.s3.amazonaws.com/SC/). Data at <https://eviction-lab-data-downloads.s3.amazonaws.com/SC/>

# Economics -- Transportation

Transportation is critical to living, whether you own a car or you have access to public transportation. Without transportation, you have limited access to employment or health care.

In general, our cities have better public transportation than small towns and rural areas. But even those fail to provide adequate coverage for zero-vehicle households. A 2011 study by the Brookings' Metropolitan Policy Program of the 100 largest cities in America ranked Greenville's system worst in the nation with 45.9 percent transit coverage for the metro area, but only 32.8 percent for the suburbs. The Greenville-Mauldin-Easley Metropolitan area provided only 27.7 percent of working age adults with access to transit.

**Source:** Tomer, *Transit Access and Zero-Vehicle Households* (August 2011) at [https://www.brookings.edu/wp-content/uploads/2016/06/0512\\_jobs\\_transit.pdf](https://www.brookings.edu/wp-content/uploads/2016/06/0512_jobs_transit.pdf).

# DEC Rate Hike Proposal

Duke Energy Carolinas filed significant rate increase request in Docket 2018-319-E with the Public Service Commission.

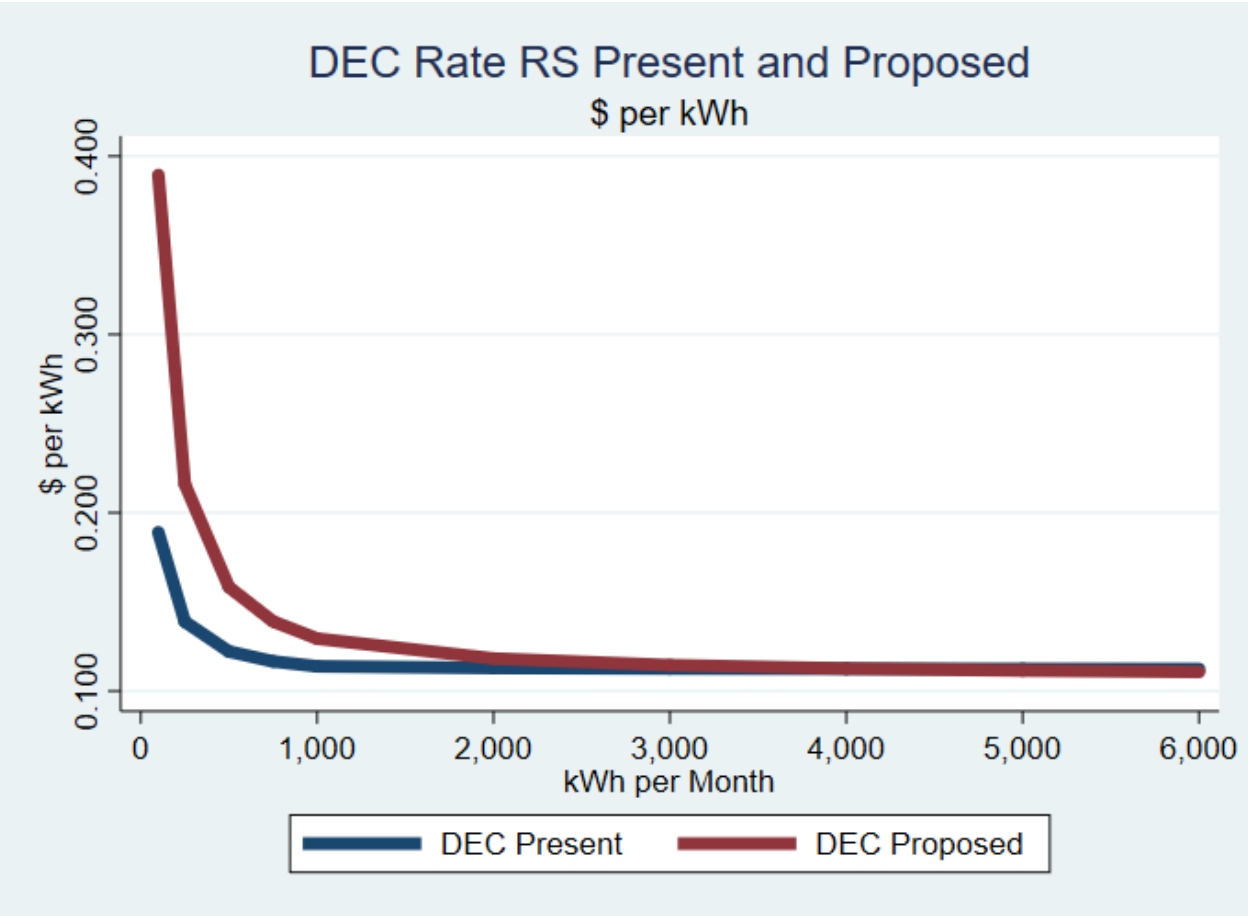
Duke Energy Carolinas (DEC) is seeking to raise electric rates for their typical residential customer (1,000 kWh per month) by 14 percent. A large component of that is increasing the “basic facilities charge” from \$8.35 (DEC) monthly to \$28.89 (DEC), a 246 % increase.

Overall, DEC seeks to increase revenues from residential customer by 12.1 %.

**Source:** Docket 2018-319-E, Pirro Direct Testimony Exhibit 2, p. 1; Pirro Direct Testimony Exhibit 3, p. 1.

Regardless of rate design questions, an overall 12.1% rate increase request will have a significant impact on all consumers. Lower-income customers will face added economic pressures to an already tough life.

# DEC Rate Hike Proposal



The DEC proposal substantially increases the effective cost per kWh at the lower end of use for DEC Schedule RS (residential service that is not all-electric). At the upper end, the cost per kWh decreases, so that high users see a smaller bill. Other residential rate schedules show the same shape because of the substantial increase in the basic facility charge.

**Source:** Docket 2018-319-E, Pirro Direct Testimony Exhibit 3, p. 1.

# DEC Rate Hike Proposal

Low usage customers who would most certainly be hurt by the radical rate shift to fixed charges include:

- a majority of low-income households,
- a majority of households with someone who is 65 or older,
- most apartment dwellers, and
- customers who conserve energy more effectively than the average person.

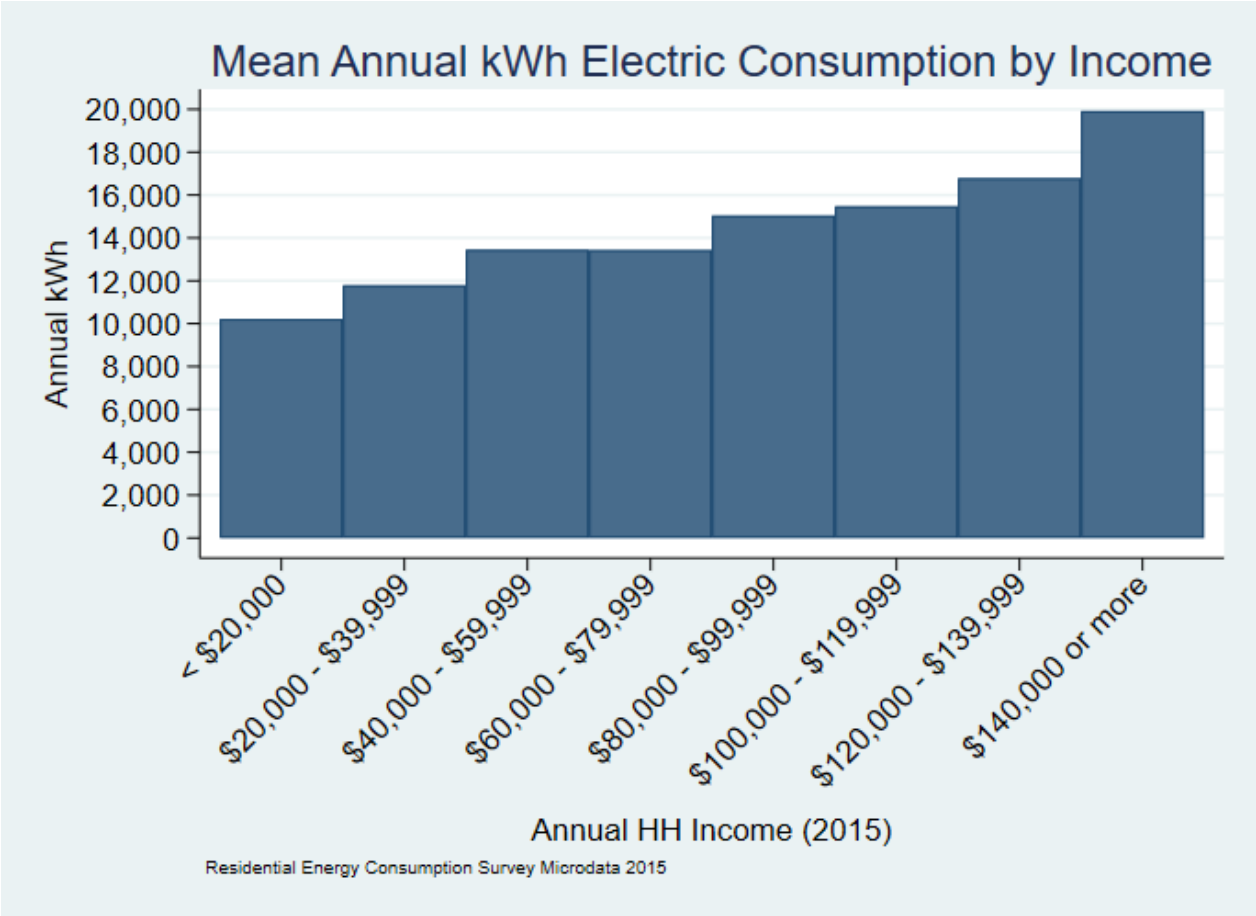
# DEC Rate Hike Proposal

Utilities, including Duke Energy, have long argued that low-income customers are, because of poor housing stock, inadequate energy efficiency improvements, inefficient heating and cooling equipment, and inefficient appliances, high use customers. But they never produce data to support this position.

Although those problems exist, they can be addressed through solutions such as weatherization and other programs. There is no way for the majority of low-income customers who are low-use customers to mitigate a large basic facilities charge.



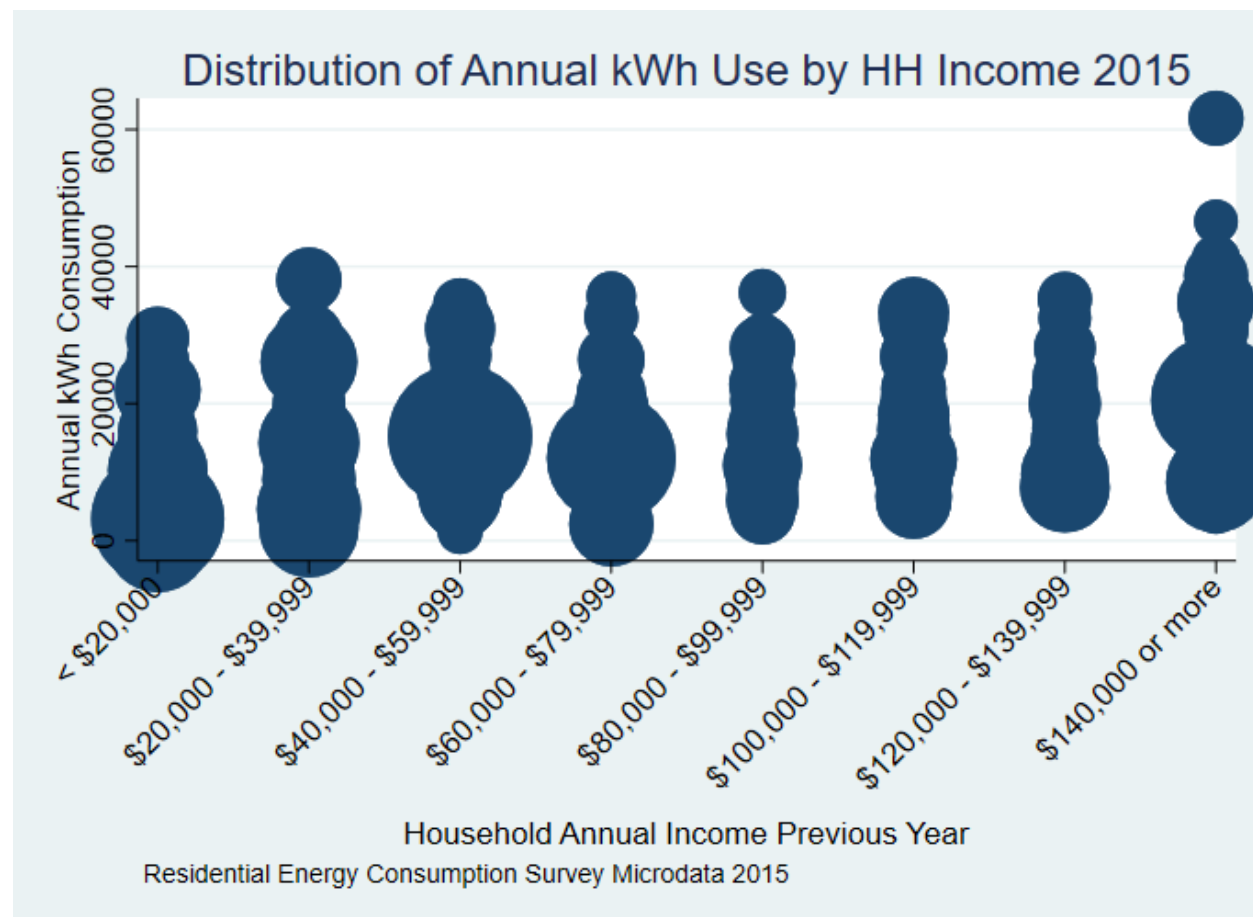
# DEC Rate Hike Proposal



**Electric consumption rises with income.** The average lowest income consumer in the South Atlantic Census Division used less than 1,000 kWh per month in the previous year. Customers with 2015 household incomes up to \$20,000 used only 10,219 kWh in the previous year, or 908 kWh per month. That compares to nearly twice the consumption (19,971 kWh annually and 1,660 kWh monthly) for those making over \$140,000.

Source: U.S. Energy Information, Administration, Residential Energy Consumption Survey (RECS) 2015 Survey Data (December 2018) at <https://www.eia.gov/consumption/residential/data/2015/index.php?view=microdata>.

# DEC Rate Hike Proposal



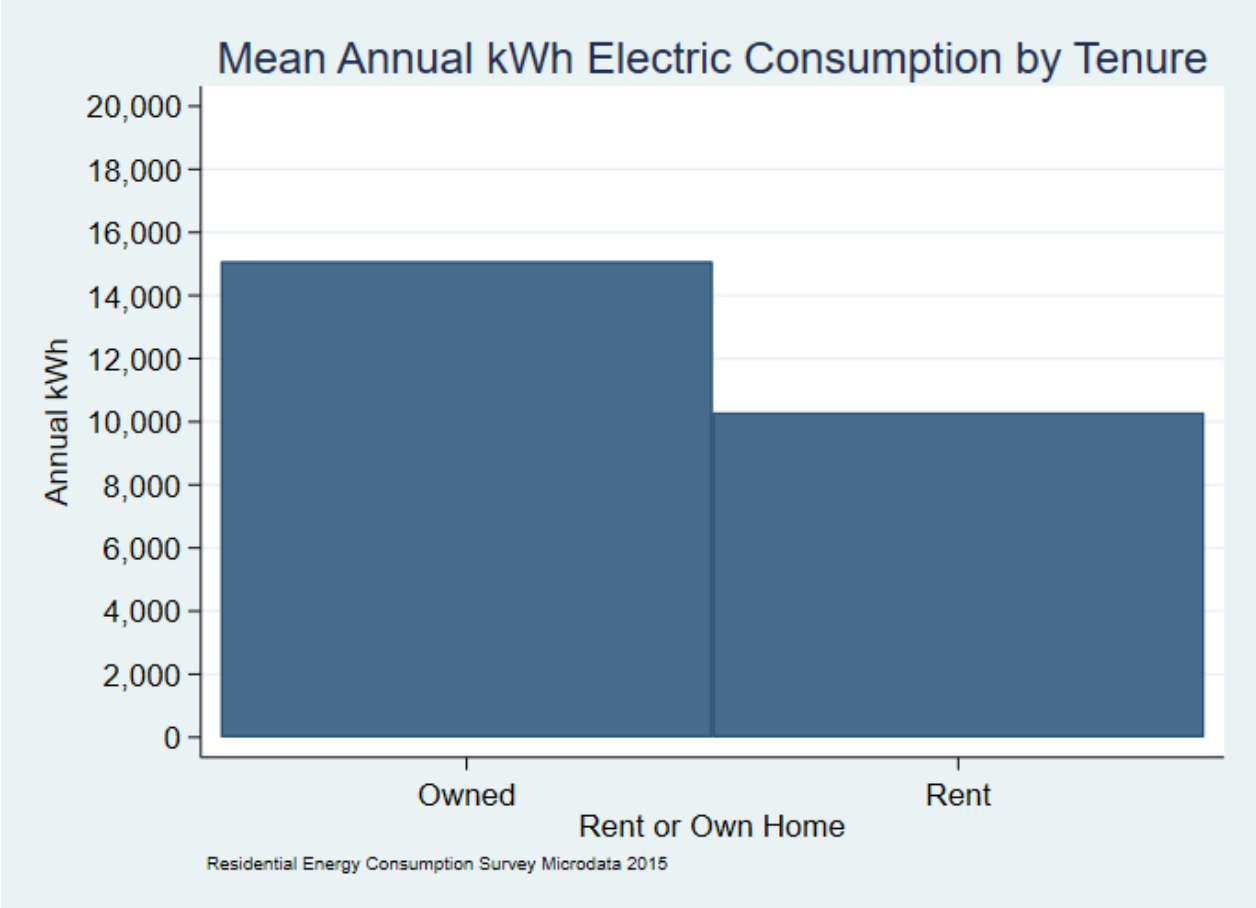
## Low-income customers suffer from high energy burdens—not high electricity use.

That's because their energy costs are high for their income—not because low-income consumers are high electricity users. The chart at the left shows the weighted distribution of electricity use within income groups. The highest consumers among low-income customers are lower than for all other income groups. Low-income people simply reduce electric consumption ... even if it means living in the cold (or hot) and dark.

Source: U.S. Energy Information, Administration, Residential Energy Consumption Survey (RECS) 2015 Survey Data (December 2018) at

<https://www.eia.gov/consumption/residential/data/2015/index.php?view=microdata>.

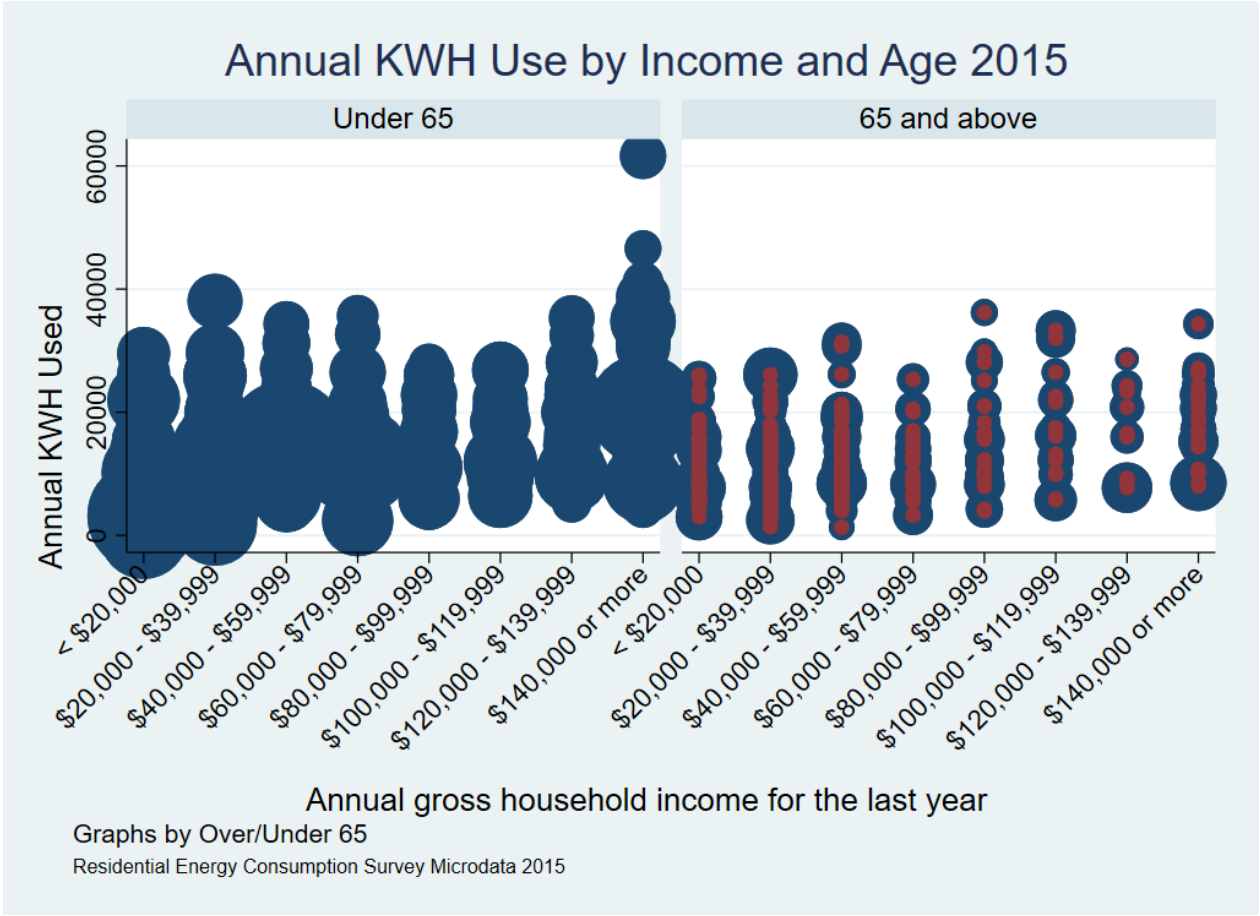
# DEC Rate Hike Proposal



**Renters are lower use electricity consumers than home owners: 858 kWh per month for renters compared to 1,257 kWh per month for home owners.**

Source: U.S. Energy Information, Administration, Residential Energy Consumption Survey (RECS) 2015 Survey Data (December 2018) at <https://www.eia.gov/consumption/residential/data/2015/index.php?view=microdata>.

# DEC Rate Hike Proposal



**Seniors—especially lower income  
 Seniors—are low-use electricity  
 consumers.**

Source: U.S. Energy Information, Administration, Residential  
 Energy Consumption Survey (RECS) 2015 Survey Data  
 (December 2018) at  
<https://www.eia.gov/consumption/residential/data/2015/index.php?view=microdata>.

# What do you do if your bill goes up and you have limited or fixed income?

The options are limited ... and generally bad.

- Reduce use, often meaning a life that is colder (or hotter) and darker, if you can
  - 16 % of the lowest income consumers do not have air-conditioning Source: U.S. Energy Information, Administration, Residential Energy Consumption Survey (RECS) 2015 Survey Data (December 2018) at <https://www.eia.gov/consumption/residential/data/2015/index.php?view=microdata>.
  - We are familiar with calls for fans for poor persons, especially elderly poor
- Cut back on needed health care expenditures for both care and medicine
- Reduce already limited food intake or convert from healthy eating to calorie eating. For a couple 51-70 a “Thrifty Food Plan” requires \$365.10 per month, while a moderate plan costs \$588.50 per month. Source: U.S.D.A., Official USDA Food Plans: Cost of Food at Home at Four Levels, U.S. Average, December 2018 at <https://www.cnpp.usda.gov/sites/default/files/CostofFoodDec2018.pdf>
- Delay purchase or maintenance of a car, threatening your ability to get to work
- Lose your home to bankruptcy or eviction
- Borrow money at unconscionable rates from payday lenders (391 % APR) [(S.C. Code Ann. § 34-39-110 *et seq.*)], title lenders (150 % - 300 % APR) or pawn brokers (141 % - 270 % APR for a loan of \$100 to \$1,000) [(SC Code Ann. §40-39-100)].

A high basic facilities charge undermines energy efficiency and removes your ability to control your bills

A high fixed charge with lowered volumetric charges reduces the incentive for all consumers to reduce usage. The marginal cost of consumption keeps going down.

More demand pushes the need to build new plant and transmission and distribution facilities. That drives up costs for electricity.

A high basic facilities charge makes energy efficiency and removes your ability to control your bills

For lower-income and fixed-income customers, energy efficiency investments are already a budgetary challenge, but a high fixed charge makes it much harder to afford even smaller dollar efficiencies like caulking and replacing less efficient light bulbs. Tripling the fixed charge to \$28.89 per month—almost \$350 per year—takes housing repairs, duct improvements and insulation off the table.

# Supports for Low-Income Customers are limited

For Fiscal Year 2016, SC Office of Economic opportunity allocated \$2,159,454 in weatherization Assistance Funding and \$4,395,934 in LIHEAP Weatherization Assistance funding to Community Action Agencies. Nine local Community Action Agencies successfully weatherized 312 homes.

- A total of 509 individuals and families were assisted including: 212 elderly (65+) individuals
- 132 disabled individuals

**Source:** SC Office of Economic Opportunity (OEO), Weatherization Assistance Program (WAP) at [www.energy.sc.gov/files/view/2-12-2018%20Approved%20Weatherization%20Assistance%20Program\\_.pdf](http://www.energy.sc.gov/files/view/2-12-2018%20Approved%20Weatherization%20Assistance%20Program_.pdf)



# Supports for Low-Income Customers are limited

“Given that LIHEAP is a capped block grant program, the funding it provides only serves a small percentage of the population eligible to receive the benefits it provides. The latest LIHEAP Report to Congress indicates that South Carolina was allocated a net total of \$38.9 million in 2014, with which 53,664 households were provided energy assistance.”

Energy and Environmental Economics, Inc., Discussion of South Carolina Act 236: Version 2.0 (December 2018),  
 39 at <http://energy.sc.gov/files/FINAL%20REPORT%20Act%20236%202.0%2012.20.2018.pdf>

Those funds are so scarce that the CAA agencies don't even advertise them, because they are gone so quickly.

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# Supports for Low-Income Customers are limited

“In addition to the federal programs, the large IOUs in South Carolina provide, or will soon provide, various types of assistance to LMI customers, including specific allocations for LMI customers in their community solar programs. SCE&G currently subscribes 160 LMI customers in its program, while DEC and DEP will each be allocating 200 2 kW shares to LMI customers.”

Energy and Environmental Economics, Inc., Discussion of South Carolina Act 236: Version 2.0 (December 2018),  
39 at <http://energy.sc.gov/files/FINAL%20REPORT%20Act%20236%202.0%2012.20.2018.pdf>

The expected savings of \$62 per month for DEC’s community solar low-moderate income customers would be cut by a third by the proposed fixed charge increase.

# Supports for Low-Income Customers are limited

There is little doubt that DEC invests in energy efficiency programs. The questions are: How many homes do they actually weatherize? and What proportion of the need does that meet?

When we hear actual numbers, they are small relative to the huge inventory of poor housing stock that confronts the DEC territory: manufactured homes, housing like mill villages that was not built for energy efficiency, and housing that is run down.

# Weatherization and energy efficiency resources are woefully inadequate to the need

Energy efficiency and alternative energy may be the gold standards for lowering light bills, but the resources available to low-income consumers in South Carolina are woefully inadequate to the need.

Much of our housing stock, such as older mobile homes not built for energy efficiency and heating with electric strip heating, costs more to weatherize and make energy efficient than the returns in lowered electricity costs are difficult to achieve.

We support those programs, but also recognize that for most low-income consumers, including low-income older persons, they simply are not available to mitigate the effects of increasing rates.

# South Carolina lacks a Lifeline program for low-income customers

South Carolina has a Lifeline program for low-income telephone consumers but none for electric customers.

During Act 236, 2.0, stakeholder discussions the Low-to-Moderate Income Solutions subcommittee outlined a proposal for the General Assembly which would provide a bill credit of \$50 per month for SNAP recipients funded by a per MWH charge of about \$2 on all electric customers, regardless of class.

“The subcommittee noted that if low-income electric consumers were not given some relief, we did not have a true state energy plan, but an energy plan for those SC citizens who can pay for it.”

Energy and Environmental Economics, Inc., Discussion of South Carolina Act 236: Version 2.0 (December 2018), 58-59 at <http://energy.sc.gov/files/FINAL%20REPORT%20Act%20236%202.0%2012.20.2018.pdf>

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# Conclusion

The DEC service territory includes substantial numbers of low-income and fixed income consumers for whom a substantial increase in their bills will have serious effects.

The particular rate design proposed in Docket 2018-319-E, with its tripling of the basic charge, will fall particularly on low use customers including a majority of low-income households, a majority of households with someone who is 65 or older, most apartment dwellers, and customers who conserve energy more effectively than the average person.

Resources to ameliorate these effects through bill-paying assistance, weatherization and energy efficiency improvements are simply inadequate to the need.

Dumping costs onto the fixed charge robs consumers of the full benefit of their energy conservation efforts and denies them the full value of their energy efficiency efforts. Large fixed charges take away customer control over their energy bills.